

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of November 25, 2008 is respectfully requested.

By this Amendment, claims 1-4 have been cancelled and new claims 5-12 have been added and are currently pending in the application. No new matter has been added by these amendments.

Revisions have been made to the abstract, as indicated above. No new matter has been added by the revisions. Entry of the amendments to the abstract is thus respectfully requested.

On page 2 of the Office Action, the Examiner rejected claims 3 and 4 under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner asserted that the term “superior” is a relative term which is not sufficiently defined such that one of ordinary skill in the art would be reasonably apprised of the scope of the invention. However, as indicated above, it is noted that claims 1-4 have been cancelled and replaced with new claims 5-12. In this regard, it is noted that the new claims do not include the term “superior,” and that the new claims have been drafted so as to fully comply with all the requirements of 35 U.S.C. § 112. Therefore, it is respectfully submitted that the Examiner’s formal rejections under § 112 are not applicable to the new claims.

On pages 2-3 of the Office Action, the Examiner rejected claims 1 and 2 under 35 U.S.C. § 102(b) as being anticipated by Lott (US 1,426,578). On pages 3-4 of the Office Action, the Examiner rejected claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over Lott in view of Ingall et al. (US 5,352,047). However, as indicated above, claims 1-4 have been cancelled and replaced with new claims 5-12. For the reasons discussed below, it is respectfully submitted that the new claims are clearly patentable over the prior art of record.

New independent claim 5 recites a tapered roller bearing comprising an inner ring, an outer ring, multiple tapered rollers rollably disposed between the inner and outer rings, and a cage for holding the tapered rollers at predetermined circumferential intervals. Further, claim 5 recites that *a roller coefficient γ thereof is larger than 0.94*.

Lott discloses a roller bearing which, as shown in Figs. 1-2, includes a cage 26 and rollers

15 arranged between a protecting sleeve 12 and an outer sleeve 16. However, Lott does not disclose a tapered roller bearing in which *a roller coefficient γ thereof is larger than 0.94*, as required by independent claim 5.

In this regard, it is noted that on page 3 of the Office Action, the Examiner asserts that Fig. 2 of Lott discloses a roller coefficient larger than 0.94. As described on page 5 of the original specification, it is noted that the roller coefficient γ is a function of the number of rollers, the average diameter of the rollers, and the pitch circle diameter of the cage. In this regard, it is noted that Lott makes no disclosure whatsoever regarding the roller coefficient, the average diameter of the rollers, or the pitch circle diameter of the cage. Therefore, it appears that the Examiner's assertion that Lott discloses a roller coefficient larger than 0.94 is based solely on the dimensions of the embodiment shown in Fig. 2.

In this regard, it is noted that MPEP §2125 states that "proportions of features in a drawing are not evidence of actual proportions when drawings are not to scale." Further, MPEP § 2125 states that "patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue." In this regard, it is noted that Lott does not disclose that any of the drawings are to scale, and that the specification of Lott is completely silent as to the dimensions of the elements shown in Fig. 2, and therefore Fig. 2 of Lott may not be relied on to show a roller coefficient larger than 0.94.

Accordingly, as Lott does not disclose a tapered roller bearing in which a roller coefficient γ thereof is larger than 0.94, as required by independent claim 5, it is respectfully submitted that Lott does not anticipate independent claim 5.

Further, it is noted that dependent claim 6 recites that the cage includes pockets for holding the tapered rollers, respectively, and that *a window angle of each of the pockets is in a range of 55° to 80°*. In this regard, on page 3 of the Office Action, the Examiner asserts that Fig. 2 of Lott discloses pockets having a window angle in the range of 55 to 80 degrees. However, it is noted that Lott makes no disclosure whatsoever regarding a window angle of the pockets, and therefore it appears that the Examiner's assertion that Lott discloses pockets having a window angle in the range of 55 to 80 degrees is based solely on the dimensions of the embodiment

shown in Fig. 2.

As discussed above, MPEP §2125 states that “proportions of features in a drawing are not evidence of actual proportions when drawings are not to scale,” and that “patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.” In this regard, it is noted that Lott does not disclose that any of the drawings are to scale, and that the specification of Lott is completely silent as to the dimensions of the elements shown in Fig. 2, and therefore Fig. 2 of Lott may not be relied on to show pockets having a window angle in the range of 55 to 80 degrees.

Accordingly, as Lott does not disclose a window angle of each of the pockets is in a range of 55° to 80°, as required by dependent claim 6, it is respectfully submitted that Lott does not anticipate dependent claim 6.

Further, it is noted that Ingall does not cure the defects of Lott as discussed above with respect to claims 5 and 6.

Therefore, it is respectfully submitted that independent claim 5, as well as claims 6-12 which depend therefrom, are clearly allowable over the prior art of record.

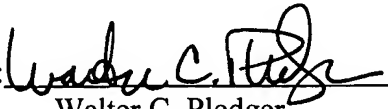
In addition, the Examiner's attention is directed to the dependent claims which further define the present invention over the prior art. For example, dependent claims 7 and 10 recite that the cage includes pole sections extending between adjacent ones of the pockets, respectively, with each of the pole sections including a protruding section having a convex shape protruding toward the outer ring. Additionally, dependent claims 8 and 11 recites that a radius of curvature of each of the protruding sections is 70 to 90% of a radius of curvature of an inner surface of the outer ring, as viewed in an axial direction of the tapered roller bearing. It is noted that the applied prior art does not disclose the limitations of dependent claims 7, 8, 10 and 11.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice to that effect is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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